

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM54398

1a. Type of Well Oil Well Gas Well Dry Other
 b. Type of Completion New Well Work Over Deepen Plug Back Diff. Resvr.
 Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator **COG OPERATING LLC** Contact: **AMANDA AVERY**
E-Mail: **aavery@concho.com**

8. Lease Name and Well No.
HOWITZER FEDERAL COM 605H

3. Address **600 W ILLINOIS AVENUE
MIDLAND, TX 79701** 3a. Phone No. (include area code)
Ph: **575-748-6940**

9. API Well No.
30-015-45833-00-S1

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
 At surface **Sec 12 T24S R28E Mer NMP
SENE 2125FNL 300FEL 32.233822 N Lat, 104.033260 W Lon**
 At top prod interval reported below **Sec 12 T24S R28E Mer NMP
SENE 2125FNL 300FEL 32.233822 N Lat, 104.033260 W Lon**
 At total depth **Sec 11 T24S R28E Mer NMP
SWNW 1767FNL 194FWL 32.234953 N Lat, 104.066296 W Lon**

10. Field and Pool, or Exploratory
PURPLE SAGE-WOLFCAMP (GAS)

11. Sec., T., R., M., or Block and Survey
or Area **Sec 12 T24S R28E Mer NMP**

12. County or Parish
EDDY 13. State
NM

14. Date Spudded
05/13/2019 15. Date T.D. Reached
07/24/2019 16. Date Completed
 D & A Ready to Prod.
01/18/2020

17. Elevations (DF, KB, RT, GL)*
2964 GL

18. Total Depth: MD **20195** TVD **9890** 19. Plug Back T.D.: MD **20094** TVD **9890** 20. Depth Bridge Plug Set: MD **20094** TVD **9890**

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
2964 GL 22. Was well cored? No Yes (Submit analysis)
Was DST run? No Yes (Submit analysis)
Directional Survey? No Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
26.000	20.000 J55	94.0	0	312		1000		0	
17.500	13.375 J55	61.0	0	2715		2150		0	
12.250	9.625 L80	47.0	0	9295		1825		0	
8.500	5.500 P110	20.0	0	20069		4500		0	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	9427	9417						

25. Producing Intervals			26. Perforation Record			
Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WOLFCAMP	10118	20009	10118 TO 20009		1600	OPEN
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
10118 TO 20009	SEE ATTACHED INFORMATION

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
01/23/2020	01/23/2020	24	→	209.0	1036.0	2997.0			GAS LIFT
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
18/64	SI 2300	1250.0	→	209	1036	2997		PGW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	SI		→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #503657 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
RUSTLER	484			RUSTLER	484
TOP SALT	956			TOP SALT	956
BASE OF SALT	2501			BASE OF SALT	2501
LAMAR	2697			LAMAR	2697
BELL CANYON	2751			BELL CANYON	2751
CHERRY CANYON	3638			CHERRY CANYON	3638
BRUSHY CANYON	4871			BRUSHY CANYON	4871
BONE SPRING LIME	6442			BONE SPRING LIME	6442

32. Additional remarks (include plugging procedure):

AVALON 7117
FIRST BONE SPRING 7427
SECOND BONE SPRING 8214
THIRD BONE SPRING 9285
WOLFCAMP 9648

33. Circle enclosed attachments:

- 1. Electrical/Mechanical Logs (1 full set req'd)
- 2. Geologic Report
- 3. DST Report
- 4. Directional Survey
- 5. Sundry Notice for plugging and cement verification
- 6. Core Analysis
- 7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

**Electronic Submission #503657 Verified by the BLM Well Information System.
For COG OPERATING LLC, sent to the Carlsbad
Committed to AFMSS for processing by VIOLETA BURKE on 06/09/2020 (20VB0284SE)**

Name (please print) AMANDA AVERY Title REGULATORY ANALYST

Signature (Electronic Submission) Date 02/18/2020

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Revisions to Operator-Submitted EC Data for Well Completion #503657

	Operator Submitted	BLM Revised (AFMSS)
Lease:	NMNM54398	NMNM54398
Agreement:		
Operator:	COG OPERATING LLC 2208 W MAIN STREET ARTESIA, NM 88210 Ph: 575-748-6940	COG OPERATING LLC 600 W ILLINOIS AVENUE MIDLAND, TX 79701 Ph: 432.685.4385
Admin Contact:	AMANDA AVERY REGULATORY ANALYST E-Mail: aavery@concho.com Ph: 575-748-6940	AMANDA AVERY REGULATORY ANALYST E-Mail: aavery@concho.com Ph: 575-748-6940
Tech Contact:	AMANDA AVERY REGULATORY ANALYST E-Mail: aavery@concho.com Ph: 575-748-6940	AMANDA AVERY REGULATORY ANALYST E-Mail: aavery@concho.com Ph: 575-748-6940
Well Name: Number:	HOWITZER FEDERAL COM 605H	HOWITZER FEDERAL COM 605H
Location:		
State:	NM	NM
County:	EDDY	EDDY
S/T/R:	Sec 12 T24S R28E Mer NMP	Sec 12 T24S R28E Mer NMP
Surf Loc:	SENE Lot H 2125FNL 300FEL 32.233822 N Lat, 104.033260 W Lon	SENE Lot H 2125FNL 300FEL 32.233822 N Lat, 104.033260 W Lon
Field/Pool:	PURPLE SAGE; WOLFCAMP	PURPLE SAGE-WOLFCAMP (GAS)
Logs Run:		2964 GL
Producing Intervals - Formations:	WOLFCAMP	WOLFCAMP
Porous Zones:	RUSTLER TOP OF SALT BOTTOM OF SALT LAMAR BELL CANYON CHERRY CANYON BRUSHY CANYON BONE SPRING LIMESTONE	RUSTLER TOP SALT BASE OF SALT LAMAR BELL CANYON CHERRY CANYON BRUSHY CANYON BONE SPRING LIME
Markers:	RUSTLER TOP OF SALT BOTTOM OF SALT LAMAR BELL CANYON CHERRY CANYON BRUSHY CANYON BONE SPRING LIMESTONE	RUSTLER TOP SALT BASE OF SALT LAMAR BELL CANYON CHERRY CANYON BRUSHY CANYON BONE SPRING LIME